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Quality of Care and Outcomes Assessment

PRE-PROCEDURE RISK SCORE PREDICTS TOTAL COSTS, LENGTH OF STAY, AND TRANSFUSION RATES

ACC Moderated Poster Contributions
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Background: Over 1.3 million percutaneous coronary interventions (PCI) are performed annually in the United States. Peri-procedure bleeding complications are common (3-6%), increasing length of stay, hospital costs and mortality. Recently, a pre-PCI bleeding risk score (Circ Cardiovasc Interv 2009;2:222) was proposed.

Methods: We applied the pre-PCI bleeding risk score to all PCI patients at 3 high volume hospitals within the Allina CV Service Line between January 2009 and September 2011. Bleeding risk scores were calculated and cases were grouped by low risk (0-7), intermediate risk (8-17), and high risk (18+). All data was based on NCDR definitions.

Results: Among 8,309 PCI patients, high (1,268 15%), intermediate (4,010 48%), and low risk patients (3,031 37%) had statistically significantly different rates of any complication (24.5% vs. 7.5% vs. 2.4%; p<0.001), need for RBC transfusion (12.3% vs. 3.1% vs. 0.5%; p<0.001), length of stay (days) (5.2 vs. 2.9 vs. 1.9; p<0.001), total costs ($22,821 vs. $14,500 vs. $11,539; p<0.001), total drug costs ($1,060 vs. $585 vs. $442; p<0.001), and mortality (6.7% vs. 1.2% vs. 0.7%; p<0.001) (Figure).

Conclusions: A pre-procedure bleeding risk assessment score can accurately identify high risk, high cost patients and may provide an opportunity to employ bleeding avoidance strategies to improve patient outcomes and reduce total costs.